

CLAIM AMENDMENTS:

1. (Previously presented) A production process for a hydroxyalkyl (meth)acrylate, which comprises the step of carrying out a reaction between (meth)acrylic acid and an alkylene oxide to produce the hydroxyalkyl (meth)acrylate in a reaction apparatus, with the production process further comprising the steps of:
 - (a) producing a resultant reaction liquid in the reaction apparatus where the resultant reaction liquid contains crude hydroxyalkyl (meth)acrylate, unreacted (meth)acrylic acid and unreacted alkylene oxide;
 - (b) introducing the resultant reaction liquid from said reaction apparatus into a distillation apparatus and distilling the reaction liquid under an operational pressure of 1 to 40 hPa to obtain a distillate containing unreacted (meth)acrylic acid;
 - (c) recovering the distillate containing the unreacted (meth)acrylic acid by the distillation of the resultant reaction liquid; and thereafter
 - (d) recycling and introducing the distillate containing the unreacted (meth)acrylic acid recovered from the distillation apparatus into the reaction apparatus as a raw material for the reaction;
wherein the concentration of the (meth)acrylic acid in the reaction liquid is in the range of 0.1 to 20 weight %.
2. (Previously presented) A production process according to claim 1, which further comprises the steps of: recovering the unreacted alkylene oxide together with the unreacted (meth)acrylic acid by said distillation step; and thereafter recycling them.

3. (Original) A production process according to claim 1, which further comprises the steps of: separating the unreacted alkylene oxide from the reaction liquid in the first place; and thereafter recovering the unreacted (meth)acrylic acid by the distillation.

Claim 4 (Cancelled)

5. (Original) A production process according to claim 1, wherein the distillation is carried out with a plate column and/or a packed column.

6. (Original) A production process according to claim 1, wherein the distillation is carried out in the presence of polymerization inhibitors involving the joint use of at least one compound with an N-oxy compound wherein the at least one compound is selected from the group consisting of phenol compounds, paraphenylenediamines, amine compounds, copper dialkydithiocarbamates and nitroso compounds.

Claim 7 (Canceled)

8. (Previously presented) A production process according to claim 1, further comprising the step of purifying the resultant reaction liquid containing the crude hydroxyalkyl (meth)acrylate, after the recovery of the unreacted (meth)acrylic acid by the distillation step.

9. (Previously presented) A production process according to claim 8, wherein the step of purifying the resultant reaction liquid is by a second distillation step.

10. (Previously presented) A production process according to claim 1, further comprising continuously recycling said recovered unreacted (meth)acrylic acid to said reaction apparatus as said raw material.

11. (Previously presented) A production process according to claim 1, further comprising directly transferring said distillate from said distillation apparatus to said reaction apparatus.

12. (Previously presented) A production process according to claim 1, further comprising transferring said distillate from said distillation apparatus to an intermediate tank, and then transferring said distillate directly from said intermediate tank to said reaction apparatus.

13. (Previously presented) A production process according to claim 1, wherein the reaction is carried out in a continuous manner and said distillate containing the unreacted (meth)acrylic acid, the raw (meth)acrylic acid and the raw alkylene oxide are introduced into the reaction apparatus after mixing of them, or from separate addition lines.

14. (New) A production process according to claim 1, wherein the distillate from the distillation is recovered and stored once in an intermediate tank for the distillate and then supplied to the reactor.

15. (New) A production process according to claim 5, wherein the concentration of the hydroxyalkyl (meth)acrylate can be lowered in the distillate.